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Title: An Outbreak of Oropharyngeal Tularemia from Drinking Contaminated Tap-Water—Sancaktepe Village, Bayburt Province, Turkey, July-August 2013

Name of FETP: Turkey FETP

Background: In August 2013, 15 patients from Sancaktepe Village, northeast Turkey, tested positive for Tularemia. We investigated to identify the cause and mode of transmission, and to implement control measures.

Methods: A suspected case was onset in a Sancaktepe villager during 1 July—31 August 2013 of swollen lymph nodes, sore throat, or conjunctivitis, or ≥ 2 of the following: fever, chills, myalgia, and headache. A probable case was onset of swollen lymph nodes plus fever or sore throat. A confirmed case was suspected or probable case plus positivity of *F. tularensis*-specific antibody by microagglutination test (titer $\geq 1:160$ or four-fold rise in convalescent sera). For case-finding, we reviewed hospital and laboratory records, and conducted door-to-door searching. In a retrospective cohort investigation, we compared risk of developing a probable/confirmed case by potential exposures. We assessed water contamination by bacterial culture.

Results: We identified 55 (39 confirmed, 16 probable) cases in 304 villagers (attack rate: 18%). The epidemic curve indicated a continuous common-source exposure. During the likely exposure period determined by epidemic curve and incubation, 27% (24/88) of villagers drinking tap-water only (RR=2.6, 95% CI=1.3-5.2) and 26% (22/85) of villagers drinking mixed water (RR=2.4, 95% CI=1.2-5.0) developed probable/confirmed cases, compared with 11% (9/85) not drinking tap-water. No other exposures assessed were associated with disease. One of the drinking-water sources was highly turbid surface water; bacterial culture yielded high total coliform [>100 colony-forming units (CPU)/100ml] and *Escherichia coli* counts (50 CPU/100ml), but not *F. tularensis*. The solar-powered chlorination device malfunctioned.

Conclusions: Drinking contaminated tap-water caused this outbreak. At our recommendation, the village administrators cut the surface source, repaired the chlorination device, and secured the drinking-water sources, collection sites, and storage tank.

Keywords: Tularemia, Outbreaks, Water, Cohort Studies, Turkey

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